



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re Application of: Bernhard LINDENTHAL et al.

Serial No.: 10/606,289

Group Art Unit: Unknown

Filed: June 26, 2003

Examiner: Unknown

For: METHOD FOR FERTILITY CONTROL

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §§ 1.56, 1.97 and 1.98

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This information disclosure statement is made in accordance with 37 C.F.R. §§ 1.56, 1.97 and 1.98 as follows:

Timing and Fees

- ☒ Under 37 C.F.R. § 1.97(b), no fee or statement is required for filing this information disclosure statement is filed:
- ☐ within three months of the filing date of a national application other than a CPA under § 1.53(d);
 - ☐ within three months of the actual filing date of the national phase of a PCT application; OR
 - ☒ before the mailing of a first substantive office action (including after filing of an RCE).
- ☐ Under 37 C.F.R. § 1.97(c), this information disclosure statement is filed after the periods specified in 37 C.F.R. § 1.97(b), but before the mailing date of:
- ☐ a final rejection under 37 C.F.R. 1.113;
 - ☐ termination of prosecution, e.g. Ex Parte Quayle, M.P.E.P § 609(B)(2); OR
 - ☐ a notice of allowance under 37 C.F.R. § 1.311; and

is accompanied by:

- ☐ the statement as specified in 37 C.F.R. § 1.97(e) set out below; OR
- ☐ a check covering the fee of \$180.00 under 37 C.F.R. § 1.17(p).
- ☐ Under 37 C.F.R. § 1.97(d), this information disclosure statement is filed after the mailing date of the following actions which have not been withdrawn:
 - ☐ a final action under 37 C.F.R. § 1.113;
 - ☐ termination of prosecution, e.g. Ex Parte Quayle, M.P.E.P § 609(B)(2); OR
 - ☐ a notice of allowance under 37 C.F.R. § 1.311;

AND is filed on or before payment of the issue fee; AND is accompanied by:

- ☐ the statement as specified in 37 C.F.R. § 1.97(e) as set forth below, and the fee of \$180.00 under 37 C.F.R. § 1.17(p).

Statements Under 37 C.F.R. 1.97(e)

- ☐ Each item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application having a mailing date not more than three months prior to the filing date of this information disclosure statement; or
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and to the knowledge of the undersigned attorney after making reasonable inquiry, no item of information contained in this information disclosure statement was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing date of the information disclosure statement.

Cited Materials

- ☐ Copies of materials listed but not attached were cited in benefit (35 U.S.C. § 120) ancestor application Serial No. _____, on Form 892 by the Examiner and/or Form 1449 by the applicant; see 37 C.F.R. § 1.98(d).
- ☐ Copies of materials listed but not attached were cited in an international search report dated _____.
- ☒ Copies of the materials listed are attached (except for the foregoing).

Non-English Language References

☒ An English-language search report or equivalent paper from a foreign patent office is provided indicating the relevance of the cited reference(s).

☐ A foreign-language search report from a foreign patent office is provided, and pertinent parts are translated substantively below:

X = document of particular relevance when it is taken alone

Y = document of particular relevance when it is combined with another such document

A = document defining the general state of the art

O = non-written disclosure

P = intercalated document

T = document cited to understand the theory or principle underlying the invention

E = patent document which has the benefit of a date earlier than the filing date and which was published only on or after this filing date

D = cited in the application

L = cited for another reason

& = publication of member of same patent family

☐ Translation of other relevant information on foreign search report

[insert necessary translation here]

Other Information

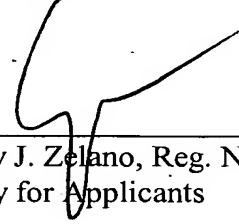
Payment of Fees Due (If Any):

☐ A check for \$_____ covering the fee identified above is attached.

☐ Please charge to Deposit Account No. 13-3402 \$_____ for the fee identified above.

☒ The Commissioner is hereby authorized to charge or credit any overpayment to Deposit Account #13-3402, two copies of this paper are attached for this purpose.

Respectfully submitted,



Anthony J. Zelano, Reg. No. 27,969
Attorney for Applicants

MILLEN, WHITE, ZELANO
& BRANIGAN, P.C.
Arlington Courthouse Plaza I
2200 Clarendon Blvd. Suite 1400
Arlington, Virginia 22201
Telephone: (703) 243-6333
Facsimile: (703) 243-6410

Attorney Docket No.: SCH-1985

Date: January 8, 2004

AJZ:at

insert file name and path

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet	1	of	3
-------	---	----	---

Complete if Known

Application Number	10/606,289
Filing Date	June 26, 2003
First Named Inventor	Bernhard LINDENTHAL et al.
Group Art Unit	Unknown
Examiner Name	Unknown
Attorney Docket Number	SCH-1985

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

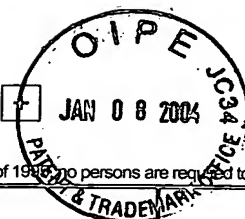
Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Please type a plus sign (+) inside this box →



PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1996, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

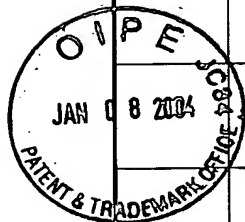
Sheet 2 of 3

Complete if Known

Application Number	10/606,289
Filing Date	June 26, 2003
First Named Inventor	Bernhard LINDENTHAL et al.
Group Art Unit	Unknown
Examiner Name	Unknown
Attorney Docket Number	SCH-1985

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No.¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	4	DATABASE MEDLINE `Online!, TSUBOI K ETA AL: "Reproduction physiology and prostanoids!" April 2001, Database accession no. NLM11338376, XP002226026, abstract & NIPPON YAKURIGAKU ZASSHI, Japanese Journal of Pharmacology, April 2001, pages 267-273, vol. 117, no. 4, ISSN: 0015-5691, Japan.	
	5	BIGGERS J D ET AL, "Reduction of fertility of mice by the intrauterine injection of prostaglandin antagonists," Journal of Reproduction and Fertility, November 1981, pages 365-372, vol. 63, no. 2, XP001131922, ISSN: 0022-4251, the whole document, England.	
	6	CALDER MICHELE D ET AL, "The role of cyclooxygenase (COX-2), prostaglandin E2 (PGE2) and prostaglandin receptors 2 and 3 (EP2 and EP3) during maturation in vitro of bovine cumulus oocyte complexes (COCs)," Biology of Reproduction, 2000, pages 271-272, vol. 62, no. Supplement 1, XP001127478, Thirty-Third Annual Meeting of the Society for the Study of Reproduction, 15-18 July 2000, ISSN: 0006-3363, abstract, Madison, Wisconsin, USA.	
	7	BREYER R M ET AL, "Structure-function analyses of eicosanoid receptors. Physiologic and therapeutic implications," Annals of the New York Academy of Sciences, April 2000, pages 221-231, vol. 905, XP008011962, ISSN: 0077-8923, abstract; page 227, paragraph 2 - page 229, paragraph 2, United States.	
	8	DATABASE MEDLINE `Online!, PREMAKUMARA G A ETAL, "Studies on the post-coital contraceptive mechanisms of crude extract of Sri Lankan marine red algae, Gelidium acerosa," September 1995, Database accession no. NLM7587193, XP002226027, abstract; & CONTRACEPTION, September 1995, pages 203-207, vol. 52, no. 3, ISSN: 0010-7824, United States.	
	9	TSUBOI KAZUHITO ET AL, "Reproduction physiology and prostanoids," Folia Pharmacologica Japonica, April 2001, pages 267-273, vol. 117, no. 4, XP001131921, ISSN: 0015-5691, abstract, figure 2, table 1.	
	10	MATSUMOTO HIROMICHI ET AL, "Diversification of cyclooxygenase-2-derived prostaglandins in ovulation and implantation," Biology of Reproduction, May 2001, pages 1557-1565, vol. 64, no. 5, XP002226025, ISSN: 0006-3363, abstract; page 1558, column 2, paragraph 5 - page 1559, column 1, paragraph 3; page 1563, column 1, paragraph 2 - page 1564, column 1, paragraph 4; figure 1.	
	11	DATABASE BIOSIS `Online!, SUGIMOTO YUKIHIKO, "Physiological functions of prostanoid receptors and their subtypes," Biosciences Information Service, March 2000, Database accession no. PREV200000240263, XP002226028, abstract, Philadelphia, PA, US & FOLIA PHARMACOLOGICA JAPONICA, March 2000, pages 131-141, vol. 115, no. 3, ISSN: 0015-5691.	
	12	DATABASE BIOSIS `Online!, BOTTING J H ET AL, "Blockade of ovulation in the rat by a prostaglandin antagonist N-0164," Biosciences Information Service, 1977, Database accession no. PREV197865066934, XP002226029, abstract, Philadelphia, PA, US & JOURNAL OF ENDOCRINOLOGY, 1977, pages 334-336, vol. 75, no. 2, ISSN: 0022-0795.	
	13	DATABASE MEDLINE `Online!, RACKE K ET AL, "Modulation of noradrenaline release in rat isolated stomach by prostanoids, but not by histaminergic mechanisms," December 1995, Database accession no. NLM9053735, XP002226030, abstract & NAUNYN-SCHMIEDEBERG'S ARCHIVES OF PHARMACOLOGY, December 1995, pages 631-639, vol. 352, no. 6, ISSN: 0028-1298, Germany.	



14	DATABASE MEDLINE 'Online!, ELVIN J A ET AL, "Growth differentiation factor-9 stimulates progesterone synthesis in granulosa cells via a prostaglandin E2/EP2 receptor pathway," 29 August 2000, Database accession no. NLM10944203, XP002226031, abstract & PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, 29 AUG 2000, pages 10288-10293, vol. 97, no. 18, ISSN: 0027-8424, United States.
15	CARROLL F I ET AL., "Synthesis and biological evaluation of 10-oxa-11-deoxyprostaglandin E1 and 10-nor-9, 11-secoprostaglandin F1 and their derivatives," Journal of Medical Chemistry, April 1978, pages 321-325, vol. 21, no. 4, XP001109081, ISSN: 0022-2623, abstract; page 322, column 1, paragraph 5 - column 2, paragraph 1, American Chemical Society, Washington, US.
16	HARRIS T E ET AL., "Human Granulosa-Lutein cells express functional EP1 and EP2 prostaglandin receptors," Biochemical and Biophysical Research Communications, 3 August 2001, pages 1089-1094, vol. 285, no. 5, XP001124310, ISSN: 0006-291X, abstract; page 1089, column 1, paragraph 1 - column 2, paragraph 2; page 1091, column 2, paragraph 1; page 1093, column 1, paragraph 2, Academic Press, San Diego, CA, US.
17	BASTIEN L ET AL., "Cloning, functional expression, and characterization of the human prostaglandin E2 receptor EP2 subtype," Journal of Biological Chemistry, 22 April 1994, pages 11873-11877, vol. 269, no. 16, XP002907488, ISSN: 0021-9258, the whole document, American Society of Biological Chemists, Baltimore, MD.
18	SENIOR J ET AL., "In vitro characterization of prostanoid receptors on human myometrium at term pregnancy," British Journal of Pharmacology, February 1993, pages 501-506, vol. 108, no. 2, XP008009794, ISSN: 0007-1188, the whole document, Basingstoke, Hants, GB.
19	HILLOCK, CATHERINE J. ET AL, "Inhibitory prostanoid EP receptors in human non-pregnant myometrium," European Journal of Pharmacology, 1999, pages 99-108, vol. 378, no. 1, XP001124311, the whole document.
20	DATABASE MEDLINE 'Online!, ANDO M ET AL., "Non-steroidal anti-inflammatory drugs (NSAIDs) block the late, prostanoid-dependent/ceramide-independent component of ovarian IL-1 action: implications for the ovulatory process," 25 November 1999, Database accession no. NLM10619394, XP002226032, abstract & MOLECULAR AND CELLULAR ENDOCRINOLOGY, 25 November 1999, pages 21-30, vol. 157, no. 1-2, ISSN: 0303-7207, Ireland.

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450.